GRUMMAN plane news

Vol. 35, No. 11, Bethpage, N.Y. June 11, 1976

Reshape Business Development for new push on future

Grumman is on the move again. After three years of financial touch and go, followed by the upturn last year, Senior Vice President Mike Pelehach says, "We've won 50 percent more Research and Development proposals in the first three months of this year than we had in all of 1975 and so far this year, some $40 million is R&D contracts...more than double the amount we won in all of '75."

Pelehach, who was named to head the new Business Development Department by President George Skurla in a broad corporate realignment last November, is tackling the challenge of getting new contracts with the same kind of energy that earned him the sobriquet, "Father of the Tomcat." His insights and long experience, capped most recently by his successful direction of the F-14's design and development, are now being tapped to stimulate new business for Grumman. That's no small challenge, considering the greatly competitive aerospace market.

How does the new realignment in Business Development shape up? "We've a closer association across the board now", says Pelehach. "For example, we find there is more interest on the part of the Business Development Department in 1980 time-period programs. Many of these programs require the expertise found in the Research and Advanced Development departments. Consequently, a close association has developed between research and new business in terms of achieving actual program goals. This is reflected by the scientific and engineering groundwork necessary to meet the advanced objectives set up by the Air Force and Navy for the 1985 time-period—in areas like VTO (vertical takeoff) and composite aircraft. And so, those future needs that have been identified are being covered by Dr. Charles Mack in Research and Dick Hadcock in Advanced Development."

The new alignment of departments in Business Development allows for a logical progression from Research and Advanced Develop-

(Continued on page 6)

Astronaut urges scholars 'persevere for success'

Alan Bean, Commander of the Apollo 12 mission to the moon, and guest speaker at the annual Grumman Science and Engineering Scholarship Awards Luncheon on June 3 at the Holiday Manor, congratulated the winning scholars for their efforts in competing against the greatest number of applicants in the history of the program. The astronaut, who in 1969 achieved fame as the pilot on man's second luner landing, praised Grumman for providing awards to high school students pursuing careers in aerospace. In a firm but easy manner, he told the audience of students, high school principals, guidance counselors, Grumman advisors, and Grumman-employed parents, "You are what you think. Your philosophy and thinking shape your life."

His comments were geared to the ambitions of the young students as he reminded them that all the studying they faced in college would only become a foundation for further study to attain their higher goals in the various sciences. Attaining a goal depends on the quality of a person's thinking, and was most evident during the Apollo program, Bean added, especially during the construction of the Lunar Module at Grumman.

'Spirit of cooperation'

Bean said the kind of thinking he referred to was made up of three main attitudes: a spirit of cooperation; a demand for excellence from yourself; and perseverence. In illustrating his idea, he said that people drop out of school because they don't work with others to accomplish their goals. The Apollo program succeeded because 400,000 people determined to cooperate in achieving the goal. In demanding excellence from oneself, each person must continually ask if the work being accomplished is the very best, and never settle for a shoddy or half-hearted effort. Perserverence is important in making the person what he or she becomes, said Bean, and when it carries conviction assures success because the goal will be pursued regardless of hardships.

Inspiring speaker. Astronaut Alan Bean addresses Grumman Scholarship Award Luncheon at the Holiday Manor on June 3.

In the morning before the luncheon, the scholarship winners were introduced to Jack Bierwirth, Chairman of Grumman Corp., and President Joe Gavin in the boardroom at Headquarters, and were presented leather bound award certificates. Afterwards, they toured the F-14 assembly in Plant 1, and the E-2 final assembly in Plant 4.

people

The Grumman family added a member in May when John and Diane Lambert became the father and mother of Keith Michael. It's not only their first child, but the first infant born into the Grumman Iranian community as well. Keith's father is a production technician on the GAC Iran F-14 Program, and lives with wife Diane in Isfahan.

He's been honored...

When Bill Trillo (L) stopped in at the Naval Air Station at Fallon, Nevada, to see how Cdr. Jerry Rogers (R) and his Green Lizards of VA-95 were doing on their first training deployment with new Intruders, the Grumman A-6 program director got a demonstration he hadn't expected. Rogers, who's skipper of the squadron that's home-based at NAS Whidbey Island, hustled Trillo into a flight suit in preparation for a hop in a KA-6D tanker, then took him on a dive bombing run to show Bill how well the A-6E performs in such a demanding environment. The report came back that Trillo proved to be such a good right-seater—and, much to the surprise of the Green Lizards, didn't turn green—that they made their visitor an honorary member of the squadron.

Bethpage welcome...

When Lt. Cdr. Jim Berry, Resident-in-Charge for the Navy at Calverton, and pilot Lt. Cdr. Mike Kearney (R) delivered an F-14 to Bethpage recently, they were greeted by Ed McNally and Marilyn Bierbaum...and their interest in this particular Tomcat was understandable. Ed is deputy director of the Product Development Center at Plant 5 where the plane will be in layup for the next couple of months; Marilyn is assistant manager of a new program that will utilize F-14 No. 36 as a prototype aircraft for incorporation of fire-protection and integration of fan containment system on the Pratt & Whitney engine.

Although this is the second Tomcat that has been returned to Grumman from the Navy for work at the Product Development Center (the first is being used as a test-bed for a new radar-guided weapon system), it's a first for Marilyn—and for Grumman. Marilyn, who started with the company in 1964 in R.F. Engineering, has a total of four years with Grumman and is now based in Digital Engineering, Product Support, is the first woman to be named an assistant manager of an aircraft program.

Tickets go on sale Monday for July 17 family picnic

Attention all good-time seekers! Circle Saturday, July 17 on your social calendar. That's the day of the annual Grumman family picnic. And, you won't want to miss that.

Since this year is America's 200th birthday, Charlie Fuschillo and his ESO contingent are busily contacting entertainers for a "really big 'shoe'."

As in years past, there will be plenty of activities for all ages...from relay races to dancing to amusement rides. And, there will be plenty to eat and drink—hot dogs, soda, beer, and ice cream.

You, your family, and friends can be there by merely dropping by your nearest friendly ESO representative to pick up your tickets for the annual outing. Tickets go on sale this coming Monday, June 14. Admission is $3 per person and children under 12 are admitted free. More info will be printed in the next issue of PLANE NEWS.

New System

Huntington Quadrangle, Plant 40 will have a new electronic telephone system installed on June 12, to provide modern telephone features for improved data and voice transmission. The system will reduce necessary repairs and allow for future growth to provide enconomic savings not available with the previous telephone arrangements.

All telephone numbers at Plant 40 will be changed to accommodate the new system and a new Grumman telephone directory has been distributed before its activation. To reach Huntington Quadrangle from Bethpage, Garden City, Calverton, Wyandanch, Stuart, and Milledgeville after June 12, dial 515 and the new four digit extension.

Personal

We wish to thank the friends of Louis R. Purga, in the Router and Shear Department, Plant 2, and Grumman for their kindness and sympathy during our recent bereavement. Elsie Purga and family.

Mildred Damante would like to thank Grumman and especially Plant 40 for the cards and flowers during her illness. Now she is at home recuperating and it means a lot to know that you care. M. Damante and family.

obituaries

JAMES W. FISCHER of Product Support Resource Application, Plant 35, died May 5 at the age of 52. He had been with the company since 1951 and lived at 64 Cottonwood Lane, Westbury.

WALTER J. MARSZAL of Ctr. Sect. — Sub-Assembly, Pl. 27, died May 14 at the age of 50. He had been with the company since 1965 and lived at 197 Osceola Ave., Deer Park.

WARREN H. MIDDLETON of Fuselage Assembly, Pl. 77, died May 16 at the age of 53. He had been with Grumman since 1962 and lived at 89 Buttonwood Circle, Hobe Sound Trailer Park, Hobe Sound, Florida.

WALTER G. BIRKEL of P/S Program Controls Mgmt., Pl. 15, died May 17 at the age of 56. He had been with Grumman since 1964 and lived at 50 Bunkerhill Drive, Huntington.

retirees

Grummanites retiring in June are the following:

Robert Baumann (3); Peter G. Bernard (3); J. R. Burkitt (25); Milton D. Colby (44); Franklin E. Combs (5); Sidney C. Cowen (2); Russell DePuy (2); Anthony DiStefano (7); Chester F. Dominski (6); Joseph Donaghy (1); Helene A. Gaw (30); Wesley Hemsley (30); Robert L. Houston (36); William J. Jacobus (44); Abraham S. Katz (6); Leo Krug (1); Charles Lehecka Jr. (1); Fred H. Luning (27); Thomas J. McDermott (5); Robert R. Mannings (35); William F. Matschat Jr. (5); Andrew C. Mattenheimer (2); John Michinski (77); Henry J. Nalenc (44); Thaddeus Niksa (6); Donald F. Otten (3); Edward Perrier (6); Michael N. Pfeiffer (30); Willard C. Ports (44); Lawrence E. Ray (44); Leslie Remsen (5); Alfred H. Siebel (12); Stanley J. Sokol (2); Charles Stenzel (3); John W. Stephens (6); Harman Trueman (1); Katherine Wagner (44); Alexander Waite (27); Fate Walker (1); William G. Webster (2); Robert S. Wertheim (24); Henley Wilson (36); Howard J. Finley (1).

calendar

Amateur Radio Club: Thurs., June 17, 5 p.m., roof of radio shack, Pl. 5; local chapter; ARRL Field Day planning; guests welcome. John Courtney, x2536.

American Production & Inventory Control Society: Tues., June 15, dinner 6 p.m., speaker 8 p.m., Maine Maid Inn, Jericho; local chapter; guest speaker: Carl Guskin, IBM — "Unit Pricing Code;" also, Ladies Night; all welcome. Norm Heilweil, x2250.

Seminar: Sat., June 12, Hofstra University; talk on "Achieving Effective Manufacturing Control Systems." Norm Heilweil, x2250.

GACE Flying Club: Fri., June 11, 5 p.m., auditorium, Pl. 28; regular monthly meeting; speaker from F.A.A.; guests welcome. Larry Hahn, x1916.

Grumman Cycle Touring Club: Sun., June 13, 9:30 a.m.; ride from Wheatley Heights Shopping Center to Lake Ronkonkama; Sun., June 20, 9:30 a.m.; ride from Calverton South Gate. Don Gormley, x84762.

Retiree Club: Wed., June 30, 12 noon, Holiday Manor; testimonial luncheon for Jim Montgomery; **Florida Suncoast:** Mon., June 28, 11:30 a.m., S&S Cafe, Sears Town, 1235 S. Missouri Ave., Clearwater; **Florida Treasure Coast:** discontinued until September; **Florida Mid West:** Tues., June 15, 11:30 a.m., Holiday Inn, Crystal River.

Society of Logistics Engineers: Tues., June 22, cocktail hour 5:45 p.m., Holiday Manor, Bethpage; dist. 10, chapter 1; Paul Shelton, director of Advance Engineering, PRD Electronics, Inc. — "VAST Program in the U.S.N.;" guests welcome, Ken Webster, x7387/Vahe Jordan, x3721.

Society of Manufacturing Engineers: Mon., June 14, 7:30 p.m., Polytech Graduate School at Farmingdale; chapter 88; guest speaker: W. Going, GAC — "Manufacturing Planning;" guests welcome. Joe Neuman, x3386.

Conservation excellence. Federal Energy Administration "Excellence In Energy Conservation" awards are presented by President George Skurla to (C) Jack McNamara, director of Facilities Maintenance, and Ron Peterson, director of Energy Programs, following earlier presentation to Grumman by the government.

Grumman gets 3 awards for big energy savings

In recognition of its special conservation efforts, Grumman Aerospace received three commendations from the Federal Energy Administration (FEA) on April 29, for savings in energy consumption in plants 25, 30, and 35. A "declaration of energy independence" was announced on that date by Alfred Kleinfeld, the regional administrator for FEA, Region II, in Federal Plaza, Manhattan. Present were 15 business and institutional interests whose combined conservation efforts for a 12-month period saved some 3,700,000 gallons of fuel oil, over $1,300,000 and 144,972,070 kilowatt hours. Grumman's savings amounted to 466,000 gallons of fuel oil in plant 25, 186,000 in plant 30, and 135,000 in plant 35.

FEA Region II, which takes in New York State, New Jersey, Puerto Rico, and the Virgin Islands, accounts for 10 percent of the nation's energy consumption and is dependent on outside sources for over 80 percent of its residual fuel energy needs. The overall Federal goal to eliminate 25 percent or 90 billion kiillowatt hours of needless energy consumption could save the U.S. economy over $135 billion a year. This savings has been estimated as enough to supply energy to produce electricity for New York City, Philadelphia, and Detroit combined.

Grumman's technical acumen used in designing and building NASA's Apollo Lunar Module has been applied to energy saving and to alternative energy sources since 1971. The Energy Programs Department was organized in 1973. Made up of a team of analytical and plant engineering personnel, Energy Programs director Ron Peterson was charged with the job of identifying and designing practical and profitable methods to save energy as well as finding other energy sources for Grumman facilities. Modifications to seven million square feet of facilities space have produced savings above $5.5 million so far.

Quality is no accident in Pride of Workmanship

Joe Kingfield, director of Operations Quality, has some pertinent ideas to share that strike at the core of "quality is never an accident," a significant quote from Victorian writer, John Ruskin. Updated and applied with twentieth-century meaning to the Pride of Workmanship Program that Kingfield heads with Bill Voorhest, special assistant to President George Skurla, the ideas represent thinking across the board for Grummanites in all parts of the company to consider.

Kingfield says that all working people should constantly ask themselves: "Is my work as good as or superior to the competition? Does my work bring customers back for more?" If we demand the best of our utilities—televisions, cars, washing machines—why settle for less from ourselves?

To make sure our work is always of the highest quality, says Kingfield, we should: "take pride in every bit of work we do; do things right the first time; recognize most errors as avoidable; correct our own mistakes when they occur; build quality into our work from the start; and never settle for less than our best."

Any time we willingly settle for less than our best, we are deliberately short-changing ourselves because high quality is nothing more than basic honesty. And if that sounds high-toned, a more immediate fact is that employees have as much at stake in a high-grade product as their company and its customers. When excellent workmanship is the rule, job security is strengthened. If dissatisfied customers switch to competitors' products, there is one effective way to reverse the trend. That's by turning out better products yourself. Obviously, no company can succeed trying to sell second-rate merchandise.

The heart of the matter is struck by the quote from Ruskin, as true today as it was in the last century. *Quality is never an accident. It is always the result of intelligent effort. There must be a will to produce superior work.*

Pride and work. Augie Ripp (2nd L) Plant 3 manager, accepts Pride of Workmanship acknowledgement from Frank Messina, director of Manufacturing, Bill Voorhest (L), special assistant to President George Skurla, and Joe Kingfield (R), director of Operations Quality. The award to Plant 3 was earned because 100 percent of its major assemblies achieved Level One–the first Bethpage plant to do so.

Grumman's Career Day exhibits

The colorful exhibits of products set up for the Annual Shareholders Meeting served as a springboard to fascination for high schoolers on Grumman's Career Day, May 21. A record number of more than 400 students from all over Long Island attended and one bus load from far away Southold High School travelled nearly 70 miles to Bethpage.

Most of the formidable array of aircraft, landcraft and marine craft displayed for the shareholders the day before, were held over for a repeat performance geared to demonstrate the full value of a Grumman scholarship and the aerospace field in general. Guests received a scholarship brochure describing the contest. In addition, a display of the current winners' and alternates' portraits made more vivid the possibility of winning one of the prized grants for future contestants.

This is in keeping with the purpose as Bill Wenzel, the administrator of the Grumman Scholarship Program and organizer of the event sees it. "Career Day opens Grumman's doors to all the high schools in Nassau and Suffolk Counties" says Wenzel, "providing them with the opportunity to come in and become familiar with Grumman's products. The crowd was not only enthusiastic and appreciative, it was big. We even had a few college and junior high school students present."

Wenzel gave a brief welcoming address centered on the "Grumman Family," proud of its achievements and closely united by them. The program included two new movie films, "1976 Product Review," and "Air Show." The first gave insight into the natural growth of Grumman pride as developed through the company's history. The second film has been described as bringing meaning to and sharing the excitement of aerospace activities.

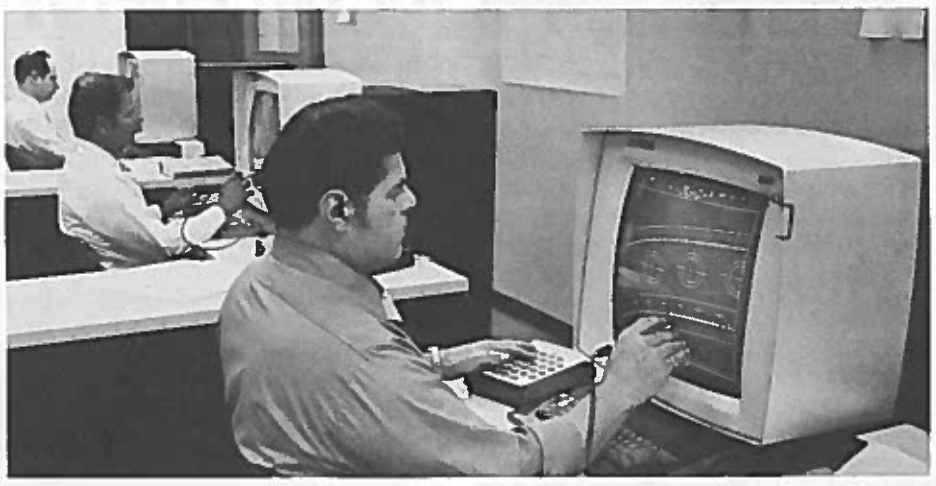
Perhaps, benefitting the most from the program were the high school juniors. Next year they will become eligible to apply for Grumman scholarships and now have a good sense of what constitutes a career in the aerospace industry.

New tv-computer systems make tough jobs easier

A computer can do a lot more than bill you at the end of the month. As a matter of fact, when linked to a TV screen, it can design, analyze, draft, manufacture, and test an aerospace product.

The use of computer systems for the tasks mentioned above is a still growing, but productive effort, all part of Grumman's interactive computer graphics program. Why interactive computer graphics? First, because the operator works *directly* with the computer gaining immediate results, and secondly, because his work is visible through the system's graphic terminals (tv screens). The goal of the program is to reduce costs by saving time—from beginning concepts to final manufacturing.

It all started in 1966, when Grumman began developing the software (computer programming) for a variety of computer-graphic tasks. At first, the structural design department has one IBM 2250 graphics terminal (similar to a tv screen with a light pen and alphanumeric keyboard) attached to an IBM 360/75 computer, and, later, to the larger IBM 370/168 "host" computer at Grumman Data Systems. In 1975 a pilot program began, combining the previously developed Grumman software with a commercial computer program leased from Lockheed.



Interactive result

The result was Grumman's interactive computer graphics program that is now being used for the drafting, designing, and manufacturing of Grumman products. So far, the system has made drawings (using three automated drafting machines) for the EF-111, the Mohawk infrared suppressor, and the production of tooling templates for B-1 stabilizer composites. Also, the Lockheed program is currently being used to produce tapes for the operation of numerical control (N/C) milling machines.

According to Paul Wiedenhaefer, director of the interactive graphics program, the computer-aided system is not designed to be a "frontier extender," but rather, "a program that uses finite, controllable, and usable steps so that Grumman can manufacture products at a lower cost." So far, it has worked exceptionally well, with estimated time savings of 65% on production drawings, and 50% on N/C tape production. The reason the interactive computer graphics system saves time is because the computer relieves the draftsmen and designers of time-consuming calculations needed for drawing creation. Also, the computer shows his work instantly at the touch of a light pen or button.

The interactive graphics system is not only rapid, but accurate because the process of design layout to manufacturing is all within the computer's capability. The operator does not have to interpret previous design work either, because any layout once used is stored in a data base for reference.

Although the Navy was once skeptical about the quality of computer-aided drawings, Wiedenhaefer says that they're changing their mind. "The Navy told us that, so far, no one had been able to convince them that a computer graphics system could turn out a complex drawing that would meet their requirements. We picked an F-14 wing structural arrangement drawing and produced it through the computer-aided system, then took the completed drawing to the NAVAIR people in Washington, where, so far, it has been rated as completely satisfactory." The project was also tracked as a test case, and the results showed a savings of 133 hours, or 65% over conventional means.

Graphic test data

The Grumman computer system is more than just a design, drafting, and manufacturing aid. Recently, the ability of the computers to produce graphic data was tested. The results of several ground vibration surveys conducted on the F-14 and Gulfstream II extended range aircraft (the planes are shaken to record vibration levels) were plotted through the graphics terminal of the Plant 35 system. The interpreted and plotted (graphed) data, required by the Navy before a plane can take off, was available almost immediately, and eliminated the time-consuming task of manual evaluation.

Another function of the interactive graphics program is to produce the design and drafting work for Grumman's printed circuit boards, electrical schematics, plug board templates, and corporate management scheduling and planning charts. The computer graphics center in Plant 5 is a busy place, with two and a half shifts using 10 graphics terminals (attached to two mini-computers), a photoplotter, and an automated high-speed pen plotter to keep up with the workload. The center (also called the Computervision system) has been in full-time operation since 1973, and has produced the electrical design work for five aircraft programs, as well as test diagrams, publication data, scheduling (manufacturing and management), and proposal schedules. Right now, Computervision at Grumman is being updated with new hard- and soft-ware to increase its production uses.

The effectiveness of the interactive graphics program at Grumman is causing a dilemma. The department is expanding, training operators, and increasing production at the same time. A program started in 1975 is training designers and draftsmen to use the system at the rate of eight per month, through the Corporate Training and Development program, but the same equipment is also needed for current production work. The solution is, of course, to acquire more equipment, so in 1976 the department will add six graphic terminals and other computer hardware. Other expansion plans include hooking up the Plant 5 computervision system to the "host" computer at GDS, so the less complicated equipment can be used for simpler operations now carried out on the Plant 35 system. The hookup will increase the size of the common data base too, which means even more stored information will be immediately available for users of both systems.

Wiedenhaefer feels the interactive computer graphics program is now ready to take on complete production tasks. "Last year we ran our pilot program, and as a result Grumman has decided to make interactive computer graphics a way of life. We're moving on in '76, and will do work for any new major military or commercial project."

Design to machining. Three graphics terminals (pictured at top of page) used by designers Len Deibler, Rudy Ramkae, and Ed Wysocki (front to back) combine with the computer at Grumman Data Systems to produce operating tapes that will run an automated drafting machine (L) and a numerically controlled milling machine.

what do you think?

Most Grummanites can remember a time when general practitioners (who were in the great medical majority) treated a bevy of illnesses, made house calls, and dispensed prescriptions along with advice on how to live more healthfully. Today, in the era of the specialist and "wonder drugs" that have become almost commonplace, the state of the art has changed. This month's question, asked at Huntington Quadrangle, is *What do you think of general medical care today?*

Joe Lamendola
mechanical drafting

Technological equipment today diagnoses medical problems better than years ago. At the same time, medical personnel are not as dedicated as they were—they're mostly money-motivated.

Kurt Sand
structural designer

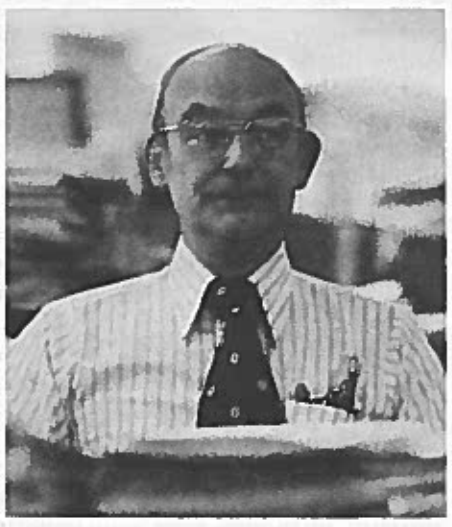
Not bad. Basically, medical care is expensive but within the guidelines of medical practice, I think it's pretty good. Medicine today, has made great strides over the way it was. It's up to the consumer to find a good practitioner. There are enough good doctors around to make a decent judgement. Again, it's up to the consumer to make sure the care he gets fulfills his requirements.

Louise Gandolfo
group secretary

It's good. I belong to a general medical plan. You're assigned to one doctor who gives a diagnosis and sends you to a specialist. I believe in that kind of medical care. It's better than private doctors because all of the specialists are right in the same building and there's one set payment a year.

Peggy Coffey
receptionist

I think it's very good, because science has come a long way with medicine in recent years although I admit it's difficult to find a general practitioner and they don't make house calls. My son's studying to be a doctor and daughter's a nurse. I think because there's a shortage of doctors, more young people should be let into U.S. medical schools.



Larry Fortier
electrical engineer

Not good. Sadly and badly in need of major improvements. At present, I don't even have a family doctor. We need doctors that can take care of simple medical problems. They've become so sophisticated that the slightest illness has to be treated as a major catastrophe. Clinics that can treat basic medical problems—and not solely make examinations—would be a big help.

John Dong
electrical engineer

I do have a very good family physician and he's perfectly helpful with problems, but he'll only spend five or ten minutes with you. Before coming to Grumman, I belonged to a medical plan that was very impersonal in its treatment. More like a factory. I perfer to pick my own physician and I don't mind paying a little extra.

Linda Lovelock
project secretary

Generally bad. You practically have to tell the doctors what's medically wrong with you today. They just don't look into a person's problems the way they used to. When I was younger, I had good experiences with pediatricians, and even today they seem to be the only ones to give thorough care. Doctors for adults don't seem to care as much.

Ken Lowry
mechanical engineer

Could definitely be better. I take my family to a surgeon because he happens to be the only doctor in my neighborhood. Specialists are good but people need a choice of general practitioners—at least for diagnosis. They should advise what specialists to see. When doctors become specialized, they feel they're justified in charging almost any amount. But general practitioners had a standard fee.

25-year reminder

All Grummanites who have hit the 25-year service milestone should circle Tuesday, December 14 on their calendar. That's the date for the annual 25-year luncheon at the Huntington Town House.

GRUMMAN
plane news

Published twice a month for the employees of Grumman Aerospace Corporation, Bethpage, N.Y. 11714, as a function of the Public Affairs Dept., Vice President J. B. Rettaliata, director.

Manager, Internal Communications
Brian Masterson
Managing Editor
James B. Conaway
Associate Editors
Kathy Housley
Charles McGowran
Editorial Assistant
Laura Solla
Reporter
Craig Williams
Telephone
Plane News: 3293
Plane News from outside line: 516-575-3293

Winning R & D contracts in Business Development

(Continued from page 1)

ment to Advanced Systems. Here the engineering applications can be applied to a design and eventually prototyped as hardware—all within the same department. Pelehach believes that laying the groundwork for the future today is emphasized in this new approach. He stresses that time is essential and by contributing to the development of requirements, in-house activities can be properly channeled toward securing contracts. This kind of awareness and early involvement can add up to savings in money and overall effort, and at the same time enhance Grumman's competitive position.

Basic change

"The basic change in philosophy we see in Washington is one of 'fly before buy,' " says Pelehach. "If you move out on a new program using conventional departmental structures found in most aerospace companies—and as they had been at Grumman—it would take two to three years to make a prototype. At that rate it would take another two years to that point in the procurement approval cycle before work could begin on full scale development. By using that approach it could take between 8-10 years from the time you initially start a prototype until you go into production. Not only is it difficult to make money following that process, but, on the other hand, the system could well be outdated by that time."

Building prototypes

To overcome this shortcoming, a Product Development Center (PDC) was established under Herb Grossman to develop one-of-a-kind prototype. Since PDC operates with a minimum of "paperwork," Grossman concentrates his groups' efforts toward getting prototypes built by cutting through time-consuming and hence money-consuming procedures. "By eliminating red tape and accelerating the prototype cycle, we can save up to three to four years on an overall program from start to initial introduction to the service," says Pelehach. "It's a capability that we must have here at Grumman if we're going to compete."

With changing attitudes in Washington, Pelehach finds the customer, too, is interested in examining all facets of the product. "The technical people in Washington want to talk about contracts, and the contracts people are now very much involved in the engineering. This practice is particularly important to the military in today's scarce-money environment. On our end, we have to support these quests for information and data on all areas of the Grumman Company—contracts through engineering, sales through support. It's all part of selling."

New objectives

The potential money-making areas for Grumman's additional growth, according to Pelehach, are the international area and U.S. government agencies and services (other than Navy). "We can't bank our whole future on getting more Navy contracts." Although Grumman will certainly continue to serve the Navy at the high level maintained throughout the years, Pelehach says that more effort will be directed toward contracts with the Air Force, NASA, and military space.

Increasing international sales—a big objective of the company—has resulted in the establishment of Offset Development, headed by Fred Raymes. Most countries in the market for aircraft try to "offset" the amount of money they will have to spend for new planes and equipment through exports from their own labor generated within their boundaries in connection with the program, or through licensing agreements.

From information generated by Grumman International, Raymes looks into foreign sales capabilities with a magnifying glass approach that takes into consideration such things as defense requirements, technological base and production capabilities, so potential candidate offset packages can be assembled for consideration. At the same time, he must identify the Grumman product lines or suitable segments of those programs that are best suited for fabrication in countries interested in offset arrangements.

Each country has different needs and interests—not to mention capabilities—so each must be considered and negotiated with individually. Currently, one country is interested in building some components of the F-14. Another plans to buy E-2Cs without any desire to build at home but the same country shows great interest in building F-14s entirely within its own borders. Says Pelehach, "It's Fred's responsibility to tie together the various plans with the Navy and make sure they all come off smoothly for Grumman."

Another innovation is the Business Planning section directed by Dan Lynch. "I call Danny Lynch 'the keeper of our resources.' Naturally, like all companies, we have a limited amount of resources here at Grumman," Mike says. "As we use up resources—tooling, shop manpower, or Research and Development dollars—it's up to Danny to provide us with a yardstick that equates to guidelines toward which jobs we should go after."

"He looks at the advantages and disadvantages of potential programs in relation to the resources we can draw on from our assets at Grumman. Then he matches his findings with the inputs from other Business Development people regarding our chances of winning. By closely examining the resources and talent available, it's possible to get a feel for those areas, projects, and fields where we're most likely to succeed."

Long view

A continual evaluation of longer-term programs is the key to what will be available for future investment. "A constant vigil over every dollar spent for programs that will run long into the future is already in effect," says Pelehach. This awareness will not only save Grumman from possible future financial stresses, but it will also assist in the selection process of those new programs we should pursue. As Pelehach puts it, "We must specify the amount of resources that we are obligating to the future as we decide to go after programs now.

"Specifically, in the area of space, we'll be obligating some $3 million this year to move out in some six different programs—both NASA and military. We've found that we'll require some $30 million worth of resources to bring these jobs in by 1980. So, if we continue to pursue these courses, we will have to deduct that amount from those future available resources as we make other out year plans."

An important innovation is the Business Planning section directed by Dan Lynch. "I call Danny Lynch 'the keeper of our resources.' Naturally, like all companies, we have a limited amount of resources here at Grumman," Mike says, "As we use up resources—tooling, shop manpower, or Research and Development dollars—it's up to Danny to provide us with a yardstick that equates to guidelines toward which jobs we should go after.

Pelehach gave an illustration of how the organization may be called upon this year to demonstrate a new technology. The example is the application of multiplex to future weapon systems. "This technique eliminates the multitude of electrical wires that interfaces various subsystems and uses instead only a few wires that carry digital commands and stimuli. While increasing weapon system reliability, multiplex reduces maintainability and decreases weight and cost. Although it's been studied at various times, in order to attain first-hand experience of the capability, we may have Advanced Systems develop a proposal for implementing some part of a weapons system on an actual airplane—an F-14 for example.

F-14 modification

"Proposal Operations would insure that the rationale for the proposal and extent of the modification was clearly described. We would then submit the proposal to the Navy. If and when approved, the modification would be carried out in an F-14 at the Product Development Center. So now we have the flexibility to go from inventing to selling, engineering to fabricating and modifying, all within our department. It's completely self-contained so we can get new programs underway without disrupting the main effort of Grumman's other programs.

"Another factor we see with the new alignment is the need to start bringing in people who have the expertise and the 'smarts' developed over a period of years working on the various Grumman programs. They have lived with programs like the E-2C, the F-14 and the EA-6B, in their development and manufacturing phases. It's a question of getting together the younger less-experienced people working in Business Development with the people who have been through the hard times on successful programs. Experience can teach us what makes a program go and work. We'll be making this transfusion more and more as we come downstream because it's also this course that will be necessary for program people in the new business area of Advanced Systems. The older hands have the reputation and the credibility in Washington that can get them the best kind of hearings for proposals.

"Summing up, I think that we have streamlined the Business Development organization to a point where we are getting more input and output for the dollar. Nobody can guarantee the future, but we are off to a fast flying start."

scorecard

On May 25, the Metro-Long Island Amateur Softball Association inducted ten people into its newly established "Hall of Fame" and "Hall of Honor". Among those so honored were former Grumman Yankee stars George Fowler and Roy Stephenson, and the late Grumman President, Leon "Jake" Swirbul.

Stephenson, who was introduced as "Mr. Softball" by Bob Zellner, former *Newsday* editor, commented that softball was a major influence on his life. The former speed pitcher during the 40s and 50s drew a heavy round of applause when he said, "I've played the best softball players

George Fowler

from all over the country, but there are no better players than on Long Island—without a doubt."

Zellner described Fowler as "the finest overall athlete" noting his achievements not only in softball but in football, basketball, track, and baseball... "He always gave his very best." The former varsity infielder has 12 world tournaments to his credit. Accepting the "Hall of Fame" award, Fowler thanked his family, teammates, friends and the ASA for the honor.

The late Jake Swirbul was cited as being the "sponsor who brought L.I. softball into national prominence". Vice President Tom Rozzi accepted the "Hall of Honor" award.

'Ambitious event'

On June 25-27, the Grumman field on South Oyster Bay Road leased to the Town of Oyster Bay will be the stage for the International Bicentennial Youth Soccer Tournament.

According to Charles Frattini of Plant 25, co-director of the tourney for nine to 13-year-old boys, the contest, initiated in conjunction with the Hicksville Communities Bicentennial Celebration, has grown to become the most ambitious international youth soccer tournament scheduled in the eastern U.S.A. Over 700 boys on 38 teams will participate.

News of the anticipated excitement and thrills of international competition has already reached Frattini. One team coach wrote: "Here in our encircled city of Berlin, this is a special invitation to the Free World. Surely you understand the group...is already extremely excited. They can not wait for the day of flight." For more information on this international event, contact Frattini on Ext. 6388.

Krystal Krackers

The latest addition to the GAA club roster is the Krystal Krackers CB Club. Its meetings will be held at the Plant 15 cafeteria on the first and third Monday of every month at 5 p.m. For more information, contact Harvis Kealey on Ext. 2614.

Perfecto!

When Hank Womble joined Grumman over 15 years ago, he also became a member of the Grumman Gophers rifle varsity. Since that time he has continued to demonstrate his prowess at target shooting. This season, he

Hank Womble

and his teammates were undefeated and captured the L.I. Industrial Rifle League crown. In addition to being a mainstay on the Gophers, Hank also was recognized as the top gun in the league by firing a perfect score of 200—a feat that was never accomplished in the league's 25-year history.

Quoits champs. Since last November, members of the Publications department have spent their lunchtime playing quoits. Bill Everett (R), director of Publications, recently presented the winners of the mixed doubles, doubles, and singles competition. The Syosset champs are: (L to R) Marge Dolderer, Bob Whitehead, Maura Higgins, Connie D'Agostino, Dot Lanni, Gabby Barresi, Frank Michels, Charlie Stack. Not shown–Pat Shannon. (Photo by Harry Prodromides)

Women's varsity aiming for that championship season

Though the season opener was cancelled due to rain, things couldn't look brighter for this year's Grumman women's softball varsity.

Eight veteran players returned this season: MVP Debbie Bianco, Linda Schrage, Joan Schwab, Carol Mayer, Eileen Carlock, Pat Ogilvie, Alice Dooley and Carol Goodwin.

"This core of returning players is nicely complemented by new additions to the squad," says team manager Joe Nieves. "New players such as Wendy Eccles, Bonnie Dressler, Rita Roth, and Olga LaBarbera have added much needed depth to the squad as well as additional defense and offense."

It is always easy at the beginning of the season to be optimistic...the true test is on the softball diamond. In the women's first game, they proved that this just might be that championship season.

Led by Linda Schrage, the varsity beat Cablevision, 14-2. Schrage went three-for-three and knocked in three runs. Alice Dooley contributed two RBI's. The next trial will be at Parkway School on June 16 against Saxe Mitchell at 6 p.m.

Set net clinic

Before you venture out onto the chalklined courts decked in your "whites" and sneakers, how about a few tennis lessons?

A six-week tennis clinic sponsored by GAA will be conducted every Wednesday and Thursday beginning June 23. Grumman varsity members Al Kirillin, Gus Spyridon, and Bill Wenzel will be at the Bethpage High School courts at 5 p.m. every week. No need to sign up, just stop by with your tennis racket and sneakers.

Radio club plans field day

The Grumman Amateur Radio Club will once again be participating in the American Radio Relay League's annual Field Day exercises, established to test the efficiency of ham stations functioning under emergency conditions throughout the United States.

During the 24-hour operation that begins Saturday, June 26, at 3 pm, Grumman hams will belabor the airways from their improvised radio station at McKay Field. Their objective is to rack up as many completed two-way radio transmissions as possible during the 24-hour period.

Last year, Grumman operators finished first in the New York City/Long Island area in the five-transmitter class. This year's event headed by club president Skip Courtney (K2UAT) and Field Day chairman Dave Goldblum (W2ZVJ) is open to all licensed hams at Grumman. Participants are asked to meet at 10 a.m. to help rig the station which will operate entirely on gasoline-drive generators. For more information, contact Goldblum on Ext. 86322 or Courtney on Ext. 2536.

Baby twister hits Bethpage

On the first of June, Long Island was the surprised parent of a "baby twister," a lightning, rain, hail, and windstorm with gusts of up to 60 mph. At Bethpage, the squall took a tour of Grumman shortly after 5 pm, and when it left there was no trouble determining where it had visited.

The storm struck the south end of the Bethpage facility the hardest, tearing up entire sections of the runway's wooden blast fence and moving them several yards. On the main stock building behind Plant 2, most of the roof covering was removed by the winds, and several holes were created where ventilation and drainage ducts were torn free. Cars packed nearby were also damaged by the flying debris. Just behind the building, a detached radardome from an E-2C (removed from the plane for maintenance) was picked up by the forceful winds and thrown against the runway guardrail, bending it out of shape. The radardome was found about 100 feet away, on a grassy area near the old, unused airstrip.

Trees torn up along the south side of the facility damaged the boundary chain fences, and some of the company traffic signs were misshapen after the storm. Damgaged power lines forced the buildings to operate on emergency systems for a short time.

After the storm, Facilities Maintenance, Engineering, and Plant Protection departments began the clean-up, repairing the damage and protecting the weather-exposed equipment of the stock building. By the end of the week, the effects of the remarkable storm were only a memory.

Plant tours for Navy reps give close-up of operations

When a group of industrial engineers and computer specialists were given a close-up of Grumman's Computer Graphics Center in May, it was far more than a routine tour of facilities. The group came from the Naval Plant Representative Office (NAVPRO) in Plant 35 and was on one of several early tours in a brand new program to heighten even more so the Navy's knowledge of working Grumman technology.

Jerry Barfus, deputy director of Manufacturing Technology, who has been leading the tours says, "Within the past few months we've initiated an on-going program of orientation for the Industrial Division people of NAVPRO so they can see the latest developments in design and manufacturing techniques at Grumman. A program of this sort helps them to understand our capabilities and potential much better. What we're aiming at is the continued expansion of lines of communication between ourselves and the Navy."

Working areas already seen by the Navy group, Barfus says, have been the electron beam welding shop, composite manufacturing center, and machine operations center. Another special benefit from the program for Grumman, according to Barfus, is the feedback from the Navy group on each visit.

After taking the tour, Dom Granite, director of the Industrial Division of NAVPRO at Grumman, said: "This orientation program is specially good because we're embarked on a contractor cost-monitoring program and it allows us to evaluate the reasonableness of program costs. It gives us a first-hand view of operations."

Recall demonstration. In Plant 5, Herman Boyle of the Computer Graphics Center, demonstrates clarity and ease of recalling programmed data at a computer terminal. Touring in NAVPRO group are: (L to R) Jerry Barfus (Grumman) Norm Cohen, Ed Bacheller, Mark Wiener, Ed Coruzzi, Mike Lombardi, Dom Granite, Ken Carmen, and Ken Brown. (Photo by Rich Breunig)

GRUMMAN plane news

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BULK RATE
POSTAGE PAID
BETHPAGE, N.Y. 11714
PERMIT NO. 284

Vol. 35, No. 11, June 11, 1976. Bethpage, N.Y. 11714